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Philosophy of religion and the scientific turn

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ABSTRACT Traditionally, analytic philosophy of religion has focused almost solely on specifically philosophical questions about religion. These include the existence of God and divine attributes, religious language, and the justification of religious beliefs, just to mention a few. Recently, many scholars in the field have begun to engage more directly with scientific results. We suggest that this is a promising direction for philosophy of religion to take. Nevertheless, we want to warn philosophy of religion against the excessive focus on methodology that has preoccupied the “science and religion dialogue” in theology. Instead of attempting to formulate a general methodology for all possible engagements between philosophy of religion and the sciences, philosophers of religion would do well to focus on local and particular themes. Since there is no single method in philosophy and since scientific disciplines that have religious relevance vary in their methods as well, progress can be made only if philosophical tools are employed to analyse particular and clearly demarcated questions.

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Background

Since the 1950s, analytic philosophy of religion has focused almost solely on distinctly philosophical questions related to religion and theology. These include (but are not limited to) questions about religious language, arguments for the existence and non-existence of God and the concept of God. In the 1980s, philosophy of religion saw a renaissance when new and more diverse views of epistemology and metaphysics stirred up the field. Although some philosophers of religion have engaged with scientific results, usually either supporting or undermining theism (e.g., Swinburne, 2004), it is clear that the methods and the questions have been distinctly “philosophical” rather than scientific. In the meantime, analytic philosophy as a whole has been strongly shaped not only by methodological naturalism, where philosophy seeks to model itself after the sciences, but also by the increasing motivation to take into account the results of the sciences in philosophical work (Kornblith, 2016). The scientific turn in philosophy of mind and cognition is a good example of this. Following this general trend, philosophers of religion have begun to engage with the results of the sciences more and more (e.g., Plantinga, 2011; Nagasawa, 2012). It is perhaps misleading to talk about “a scientific turn” in the philosophy of religion: methodologically philosophy of religion has not become more scientific, nor are there many voices demanding that. Nevertheless, philosophers have begun to take scientific results into account in debates that have traditionally been conducted in philosophical terms only.

Generally speaking, we find this turn towards increasing engagement with the sciences a positive one. Not only does it make philosophy of religion more pluralistic and interdisciplinary, but it also injects the stale debates with new ideas and perspectives. We also want to maintain the “philosophical” nature of philosophy of religion: it cannot be turned or transformed into a science to supplement or replace the scientific study of religion.

In this article, we want to address two interconnected issues. The first has to do with the methods of engagement between the sciences and philosophy of religion. We will provide some methodological reflections on how this engagement with the sciences has been done and how it could be done better. By drawing lessons from theology, especially the “science and religion dialogue”, we suggest that philosophers of religion should not commit themselves to one, single method of engagement or enforce one methodological stance for all such engagements. We refer here especially to a number of scholars who have attempted to develop a post-foundationalist methodology for all such engagements. As far as we understand it, postfoundationalists have two goals. On the one hand, they seek rehabilitate theology as an academic enterprise; on the other hand, they seek to resist scientific or reductionistic views of the sciences as a whole (e.g., Van Huyssteen, 2006).

Although we suggest that lessons can be learned from “religion and science”, we do not want to press the analogy too far. It is clear that philosophy of religion and “science and religion” dialogue are not completely analogous. The scope of the analogy obviously depends on how we understand, among other things, the nature of “science” and to what extent theology or philosophy of religion might be understood as faith-based or apologetic enterprises. Nevertheless, there is enough similarity between the cases that warrant the analogy for our purposes. The second part of the article highlights some topics where philosophers of religion have, we suggest, successfully taken into account or responded to scientific work thus contributing to the interdisciplinary discussion. We will conclude the article with reflections on future topics and questions, and some suggested modes of engagement.

Before going any further, we want to note the following. It is not our aim to offer a programmatic discussion of the nature of philosophy of religion as a whole, since this is beyond the scope of this article. Instead, we outline a way of understanding how the engagements between science, philosophy and religion could be conducted more efficiently; an apologia for a pluralistic methodological approach, one might say. Regarding the specific examples of some topics briefly mentioned along the way, we do not aim to break new ground.

What does philosophy of religion have to do with the sciences?

Philosophers of religion have many different motives for engaging the sciences. The most salient one has, of course, been the impact that the sciences might have for the theism/atheism debate. We call this the “apologetic motive”. On the atheist side, there are arguments suggesting that some large-scale scientific results, say, from evolutionary biology and cosmology, undermine theism in some way or another. According to a very popular argument, Darwinist evolutionary biology undermines those arguments for the existence of God that are based on biological design. Some have even suggested that evolutionary biology undermines all aspects of theism (e.g., Dawkins, 2006). However, it is not only the results of the sciences that are relevant in this context. Rather, the progress and trustworthiness of the sciences has also raised epistemological challenges to the rationality of religious beliefs and commitments. The Dutch philosopher Herman Philipse, (2012) is a good example of a philosopher who employs both strategies. First, he argues that the ways in which religious beliefs are formed (claims about revelations, testimony, etc.) are in fact much less reliable than scientific ones. For this reason, one should take scientific results as having superior authority over less reliably produced religious beliefs. Second, he argues that all arguments for the existence of God, gods and supernatural beings fail, be they empirical or conceptual.

The theist side of the debate has attempted to defuse the scientific challenge to theism in different ways. One well-known response is to adopt scientific-style reasoning in defence of theism, like Richard Swinburne, (2004) has sought to do for decades. According to Swinburne, metaphysical claims, such as the existence of God, can be established with some probability by invoking a large spectrum of empirical evidence. These include the existence and general features of our world, certain historical events and religious experiences. The theistic hypothesis, according to Swinburne, explains this evidence better than the naturalistic one. Another response comes from the so called Reformed Epistemology that seeks to defuse the epistemic challenge from science by defending a different kind of epistemology altogether. But this is all familiar territory to those in the field of philosophy of religion.

Although it is somewhat narrow, we find nothing wrong in principle with the apologetic motivation. One function of philosophy of religion is to make the reasons behind and the structure inherent in religious and non-religious worldviews as clear and transparent as possible. Moreover, it is a value for civic discourse to be based on views that are publicly and properly managed (Gutting, 2016). In what follows, we, nevertheless, want to look beyond the apologetic motive and seek wider forms of engagement between the sciences and philosophy of religion. Now, the question is what these engagements could look like. Here we might take our cue from philosopher Alvin Goldman, (1992), who is known for his work at the boundary of epistemology and the cognitive sciences. According to Goldman, there are at least three separate ways in which philosophers have engaged with the cognitive sciences.

First, the traffic can be from philosophy to some other discipline. Cognitive science is a field where philosophers have made significant contributions to empirical work. Philosophical contributions to the field include theories, models and hypotheses, but especially philosophical tools. As is well known, different systems of logic, probabilistic reasoning and semantic theories of philosophy are now widely employed in cognitive linguistics and artificial intelligence studies, for instance. Philosophical theories concerning the mind-body problem and consciousness, for instance, now have a life of their own in different fields of the cognitive sciences. As far as we see it, philosophers of religion have had very little engagement of this kind with the sciences in the last century or so. Philosophers of religion very seldom contribute anything to the sciences themselves. However, we will suggest later that this does not necessarily need to be so. Perhaps philosophers of religion could contribute to the sciences by providing claims and perhaps even theories that could be tested and assessed in the scientific study of religion or even experimental philosophy.

In the second form of engagement, philosophers can bring insights from philosophy of science, analyse background assumptions and metaphysical commitments of different theories. By assuming this role, the philosopher clarifies critical concepts thereby contributing to possible novel empirical questions and theoretical innovation in the target field. We think this kind of engagement could also include the interpretation of scientific results: what kinds of conclusions can be drawn from them given their methodological assumptions? This, we suggest, can also include engaging with popular science material, since oftentimes the most important interpretations of scientific results appear in popularised works rather than in scientific papers themselves.

This form of engagement has been more popular among philosophers of religion. They have debated interpretations of the aforementioned evolutionary biology and physical cosmology, for instance (Holder, 2004). However, more positive contributions via methodological criticism and analysis have been surprisingly rare. We think that there could be multiple scientific fields where philosophers of religion could make a distinctive contribution. The authors of this paper have worked on the scientific study of religion (Visala, 2011), interdisciplinary models of human nature, and the psychology of disagreement (Vainio, 2017) just to mention a few.

The most natural domain for the philosophers of religion to engage in this way would be religious studies and the scientific study of religion. Various approaches in the study of religion have their own distinctive philosophical questions that have overlapped somewhat with philosophy of religion. These include, among other things, the concept of “religion” itself. Questions have been raised whether “religion” is a helpful scientific category at all; perhaps “tradition” or “practice” would be more accurate. Against this, one could maintain that “religion” still has pragmatic value in the study of religion: it is useful to have a general definition of religion but one must at the same time remember that it might not work in all cases (Nongbri, 2013).

Coming back to Goldman, there is a third way in which he sees the relationship of philosophy and the sciences playing out. Instead of contributing to the cognitive sciences, philosophers can apply the results and theories from this field to reformulate or answer philosophical problems. When philosophers of religion have engaged the sciences in this way, the motivation has mainly been apologetic, but it need not be so. Philosophers of religion should use a wide variety of scientific results, since their own interests span from moral and religious knowledge to metaphysics. This variety of interest beyond the apologetic motivation can be seen in a recent edited volume on scientific approaches to philosophy of religion (Nagasawa, 2012). Essays in the volume

cover many different topics and seek to employ theories from the natural and behavioural sciences to problems in philosophy of religion. There are essays on psychology of counterfactual thinking, multiverse cosmology, the cognition of religious disagreement, as well as the psychology of character formation and responsibility.

In philosophy of religion, there has been a long-standing debate on what role naturalistic explanations of religion have in the atheism vs. theism debate. It is clear that simply offering a naturalistic explanation of belief in God or gods does not show that these beliefs are false. Nevertheless, such explanations might cast doubt upon religious claims in some other way. In the current scene, these issues are discussed in the context of so called debunking arguments of ethics, morality and religion. The main issue here is whether the epistemic status of our value-beliefs, moral beliefs and religious beliefs changes after we take into account evolutionary and cognitive explanations of these beliefs. We will return to this issue in more detail later.

What can philosophers learn from the science and religion dialogue?

The question is how exactly philosophers of religion should engage with the sciences. In what follows, we want to suggest that we need not enforce one single methodology for such engagements. Here we want to draw a specific lesson from theology, where the “science and religion dialogue” has been going on for some time now. It seems that many theological post-foundationalists have attempted to formulate an overarching methodology for theology and science engagements. Against this, we want to suggest that philosophers of religion can proceed successfully without strongly committing themselves to some overarching methodological stance. Philosophers of religion should be pluralists: engagements between philosophy and the sciences should be conducted more “locally” than “globally” and taking into account the diverse interests of those actually involved in the engagement. Something similar is also acknowledged in general philosophical methodology, so our argument does not constitute any kind of special pleading (Cappelen, 2017).

The best way to approach the “science and religion dialogue” is to look at its aims. After four or five decades of intense research and branching out towards various scientific disciplines, it seems that the “dialogue” has not really achieved its aims as they were originally conceived. Although the dialogue began in the 1970s in the English-speaking world, mainly in the UK, it has since been taken up in continental Europe, as well as in the US. The dialogue was originally an attempt to form a workable theological position between two extremes: science inspired naturalism that rejects central theological claims (the existence of God and the possibility of revelation, for instance) and entails a large-scale conflict between science and theology, and creationism or various forms of intelligent design theory that reject the validity of large parts of contemporary science, especially biology. Furthermore, this view was supposed to be disseminated amongst both scientists and theologians: from now on, both could work together in solving the great mysteries of life and cosmos. So, the aim was to make both academic theology and actual religious communities adopt a more positive attitude towards the sciences and to convince the sceptical scientists to adopt a friendlier attitude towards religion and theology. Early on, scientist/theologians such as John Polkinghorne, Arthur Peacocke and Ian Barbour, (1998), among others, argued for a deep compatibility between scientific and theological worldviews.

The field has enjoyed steady growth since the early days and it has established itself as a kind of sub-discipline of theology. The enquiry so far has produced constructive theological proposals

that seek to integrate scientific insights into theology (e.g., Peacocke 2004). Several journals (*Zygon*, *Theology and Science*), institutions (*Ian Ramsey Centre* in Oxford, the *Zygon Centre for Religion and Science* in Chicago), professor's chairs and lecture-ships (Oxford, Cambridge, Princeton Theological Seminary, Boston University) and societies (*International Society for Science and Religion*, for instance) have emerged to support and structure the research in the field. The intellectual development of the field is summarised in numerous textbooks and handbooks published in the last few years (e.g., Clayton and Simpson, 2006).

Regardless of the steady growth of the field both academically and intellectually, there are dissenting voices. Philosopher Willem Drees' analysis is dim: "Despite much activity, however, consensus on issues of importance seems far away, the impact on theology and on religious communities is limited and the academic credibility of 'religion and science' is marginal." (2009). Apart from occasional knee-jerks towards biological evolution, Western theology, for the most part, has proceeded without taking into account what the sciences say about important theological issues, such as the nature of human beings. The same is true of actual religious communities, which oftentimes exhibit a hostile attitude towards science. Finally, the science and theology dialogue has had very little impact on the academia at large.

It is surprising to note that there are very few critical assessments of the science and theology dialogue from the theological side. Most textbooks and handbooks only mention the rapid development of the field but do not provide a general assessment as to whether the field has achieved its goals. So far, many have turned to postfoundationalism as methodological tool to achieve the original goals set for the debate (e.g., Van Huyssteen, 2006; Marshall, 2002). The underlying assumption was that if the right method were to be found, the dialogue would subsequently sort itself out.

However, it is clear that the science and religion dialogue has not achieved methodological unity or consensus. According to Drees, (2009), the failure to reach the original aims stems from the fragmentation endemic to the field. The fragmentation is most likely produced by the mutually exclusive philosophical assumptions and interests of the participants: most participants operate on the basis of their own (and mutually incompatible) religious (or non-religious) assumptions and, thus, understand the nature of science, religion and theology differently than others. Some might be critical of the sciences and unwilling to modify their theologies, whereas others are willing to make large-scale theological revisions to accommodate even the most thoroughgoing versions of scientific naturalism. Another methodological issue is the analytic-continental divide: the area is torn between continental style theology and postmodern philosophy in Europe and more analytically and science-oriented approaches in the English-speaking world.

Although we do not see much progress in the distinctly theological part of the dialogue, other parts of the discipline have progressed well. Here we have in mind the research conducted into the history of the relationship between religions and the sciences. Indeed, the work done here has successfully debunked the very popular conflict narrative or conflict myth of science and religion (Numbers, 2009). Significant work has been done on the Galileo case, the birth of the scientific method in the late medieval and renaissance Europe, as well as the 19th century debates on Darwinism just to mention a few topics (Harrison, 1998, 2015; Brooke, 1991).

We can draw an important moral from this: when the science and religion dialogue has made progress, the progress has come about through scholars working on methods they know well (in this case historical ones) and focusing on specific claims (the

conflict myth, for instance). We think that this should be also the model for the future of scholarship. Instead of formulating the supposedly correct overall method for the engagement, like the postfoundationalists suggest, scholars should localise their approach and concentrate, for example, on particular instances where scientific theories or results seem to be relevant to religious views and use the methods that seem to be appropriate for this specific task.

The debate about debunking

We now move from the methodological discussion towards the topical. More specifically, we want to highlight one area where philosophers of religion have successfully engaged with ethicists, epistemologists and scientists. This is the debate about psychological or evolutionary debunking arguments. Given the progress of offering evolutionary and cognitive accounts of the emergence of moral and religious beliefs, there have been suggestions that such accounts undermine the rationality or justification of such beliefs or preclude moral and religious knowledge altogether. This debate, we suggest, is a point where philosophers of religion can engage with the sciences in all aforementioned ways. First, they can provide hypotheses to be tested by the scientists (could there be a specific cognitive mechanism for religious experiences, for instance). Second, they can engage in methodological analysis and clarification of the work in cognitive science and evolutionary biology. Finally, they can use the results in multiple ways: assess whether they are relevant for the theism/atheism debate and rework their ideas about religious or moral epistemology, just to mention a few.

What are evolutionary debunking arguments? The discussion has heated up as a result of the increasingly detailed evolutionary and cognitive explanations of our value-beliefs, moral beliefs (Joyce, 2003; Griffiths and Wilkins, 2013) and god-beliefs (Leech and Visala, 2011). Debunking arguments can be aimed at undermining the truth of these beliefs or the basis of which we come to believe them. Consider god-beliefs and the archaeologist Steven Mithen, for example. According to Mithen, religion is a human universal: it can be found in almost all cultures and societies. This fact, he continues, can be explained by positing the existence of a supernatural realm where gods reside or by providing evidence that the human mind itself creates these ideas about the supernatural. Mithen goes for the latter solution, since the "on-going activity of the universe and life are explained by entirely natural processes". He concludes that

Religious thought is uniquely associated with *Homo sapiens* and arose as a consequence of cognitive fluidity, which was in turn a consequence of the origin of language. In this regard, there appears to be no need to invoke a moment of divine intervention that initiated the start of a revelation. For me, therefore, there is no supernatural, no God to be revealed. (Mithen, 2009)

As far as we see it, the argument can be characterised as follows. The fact that there is a plausible naturalistic explanation for the emergence of belief in gods, demonstrates that god-beliefs (and supernatural belief in general) is false. To be more precise, the deductive version of the argument would be this:

1. If there is a complete or sufficiently complete causal explanation of how belief in God came about and this explanation does not include God as a causal factor, then there is no God.
2. Current cognitive and evolutionary accounts of religion provide a complete or sufficiently complete causal explanation of this kind and they do not include God as a causal factor.
3. Therefore, there is no God.

Such an argument has a number of problems. First, there seems to be very little reason to accept 1. The falsity of god-beliefs cannot be inferred from the fact that there exists a causal explanation why people have god-beliefs that does not mention any god. This would commit the genetic fallacy. By exposing the causal history of a belief says nothing about the truth of the belief. This is because the truth (or falsity) of a proposition has no necessary relationship to the causes that led people to believe it. For such reasons, philosophers of all stripes consider such inferences as invalid.

Furthermore, premise 2 is also vulnerable to critique. One could point out that we do not as of yet know whether the scientific theories of religion we now have will withstand the test of time. Or one could grant that perhaps the cognitive and evolutionary factors that current theories invoke to explain religion are necessary, but not sufficient conditions for the emergence of religion (or at least we do not know that they are). Thus, it seems that we do not have enough reasons to exclude the possibility of other causal factors being involved (Visala, 2011).

Given the aforementioned points, it seems to us that debunking arguments aimed at the truth of god-beliefs or perhaps even moral beliefs are not very plausible. However, debunking arguments usually target the grounding of a belief rather than its truth. In this case, they seek to undermine the rationality, justification or otherwise cast doubt upon the belief on the basis of how it is generated. Philosopher Guy Kahane, (2011) provides a schematic version of the argument:

- S's belief that p is explained by X.
- X is a process that does not track the truth of p.
- Therefore, S's belief that p is not justified.

It is not difficult to adapt this schema for our purposes.

4. Susan's belief that there is a God is explained by her unconscious cognitive mechanisms.
5. These cognitive mechanisms are not truth-tracking with respect to the existence or non-existence of God.
6. Therefore, Susan's belief that there is a God is not justified.

There is a considerable body of work dealing with debunking arguments of this kind (e.g., Visala, 2014; Jong and Visala, 2014; Leech and Visala, 2012; Clark and Rabinowitz, 2011; Schloss and Murray, 2009; Trigg and Barrett, 2014; De Cruz and de Smedt, 2014; Vainio, 2016). Let us simply mention some counter strategies that have emerged in the literature to block the aforementioned argument.

First, premise 4 suffers from the same problems as premise 1 above. So, it seems that any given individual's belief in God is underdetermined by her intuitive cognitive mechanisms. If this is the case, then even if we could eventually get a full description of a person's intuitive cognitive mechanisms and demonstrate that such mechanisms are unreliable sources of god-beliefs, we could not conclude that god-beliefs were unwarranted. They could be justified on some other grounds.

Second, premise 5 looks much more plausible and defensible. One defence would be as follows. It could be argued, for instance, that a causal connection of a certain kind has to connect a belief and its target for the belief to be justified. An argument could be made that such a link might not exist in the case of theism: the best explanation on offer seems to suggest that if God did not exist, people might be theists anyway. One cognitive mechanisms singled out for its unreliability is the postulated (hyper)sensitive agency detection device (Barrett, 2011). This system responds to clues of agency and purposeful action in perceptual input. The suggestion is that human agency detection is oversensitive or

hypersensitive: it overextends agency where there is none (natural occurrences, luck, misfortune, etc.). In addition to being oversensitive, agency detection is unreliable in other ways as well. The god-beliefs it generates or supports are extremely diverse and mutually incompatible: the religious worlds are populated by various gods, spirits, ghosts and other non-natural agencies. This diversity demonstrates that human agency detection is unreliable.

There have been a number of responses to such arguments. Philosopher Michael Murray (2009) and others have maintained that the unreliability of agency detection is difficult to prove without assuming the truth of atheism. The bottom line is that, for the most part, our agency detection successfully detects actual agency. We identify other humans, animals and their various kinds of intentions very reliably. Without assuming atheism, there seems to be nothing in the cognitive science account of agency detection that would rule out the possibility of genuine agency detection in a religious context as well.

As for the link between unreliability and diversity, Murray has tried to respond to this as well. He suggests that the diversity might be a product of the cultural context where the outputs of the agency detection system are interpreted rather than the system itself. Thus, the outputs of the agency detection system would be stable across cultures and therefore reliable, although their cultural elaborations would change from context to context. One might respond to Murray here by introducing an epistemological worry: how do we know what the "real" outputs of agency detection system are, since they are always interpreted in some cultural context? Is not the fact that the outputs can be interpreted differently itself a signal of the unreliability of the mechanism? As such responses demonstrate, it is far from clear that the problem of religious diversity has been solved. The discussion on debunking arguments is likely to continue.

Future issues

Lastly, we wish to briefly highlight some promising fields of enquiry where philosophy of religion and other sciences can meet and produce something beneficial, not only for academic specialists but for the public. These topics include free will, virtues, religion and violence and cosmology.

Free will and moral responsibility. Philosophers of religion are interested in free will for a variety of reasons. Notions of free will and responsibility are central to many religious doctrines, including incarnation, sin, grace and salvation. In addition, free will is crucial in debates about personhood of both God and human beings. Finally, free will has to do with philosophical and theological views of moral cognition and virtue. Despite the fact that Christian theologians disagree about free will to some extent, they nevertheless maintain that humans are moral agents, who are accountable for their actions in front of God and one another.

Interestingly, some cognitive scientists and neuroscientists have been sceptical of free will. Inspired by the 1980s studies of neuroscientist Benjamin Libet, psychologist Daniel Wegner, (2002) argues that free will is an illusion. According to Wegner, conscious decisions are not involved in the production of human actions. Instead, underlying neural mechanisms cause both actions and feelings of conscious decision-making. In other words, our conscious "decisions" are more like rationalisations that attempt to retroactively make rational the actions caused by subconscious, non-rational mechanisms.

These claims sparked an enormous philosophical and scientific debate (e.g., Baer and Kaufman and Baumeister, 2008). Philosophers of religion could engage with this debate in a variety of ways. They could highlight, among other critics of

Wegner and others, that a very limited notion of free will is being assumed here. It is assumed that an action must be immediately preceded by a conscious decision in order to be free. Against this, philosophers of religion could maintain that our moral responsibility practices are rather diverse and varied: it seems that people can be held responsible for actions that are not immediately preceded by conscious decisions.

Freedom and moral responsibility are fruitful areas of discussion, because of the probability of new neuroscientific and cognitive science results in the near future. The study of cognitive and neural processes of decision-making is progressing quite rapidly. The engagement need not take the form of opposing the sceptical conclusion. It can also channel the results of this research into philosophy of religion. In terms of human decision-making and moral cognition, there is an important lesson to be learned here: human moral decisions and choices are not always as deliberate and conscious as humans might like to think. Most of our cognitive mechanisms work automatically without our conscious awareness. And, like breathing, we do not consciously decide to do most of the things that we do.

Virtues and moral character. Ever since Plato and Aristotle, we have asked whether and how teaching and learning virtues might be possible. Recent advances in moral psychology have provided some empirical studies that demonstrate how stable our characters are and how they might be influenced, for good or for worse (Miller, 2014; Peterson and Seligman, 2004). The current state of the art seems to suggest that we humans are bundles of various habits some of which are good while some bad. None of us is simply virtuous or vicious, but we can excel in some areas while failing in many others. Nonetheless, our characters appear to be relatively stable, and also subject to behavioural improvement or degeneration.

As we come to understand how the human mind works more and more, this raises important philosophical and religious questions, which are not, as such, answerable by the sciences alone. What are virtues we should teach to our citizens? What is the best way to do so? The received answer is that we need small-scale institutions, like families and clubs, that are best suited for cultivating virtuous behaviour (Adams, 2006). However, these theories can and should be tested in the future. The current escalated culture war and campus meltdowns in USA make these questions all the more important.

How should we view moral failures and responsibility given what we know about the weakness and malleability of the human mind? Why some forms of action that appear virtuous, can be in fact vicious (Tosi and Warmke, 2016)? These are likewise timely and practical questions, which incidentally were thoroughly investigated by patristic and medieval authors (Saarinen, 1994). Contemporary authors have not so far engaged these works in constructive manner.

Religion, tolerance and violence. The acts of terror perpetrated in the name of Islam have produced a burgeoning field of study since 9/11. While we still may hear simplistic accusation about the relationship of religiosity and violent or extremist behaviour, there is ample amount of material that uses philosophical clarity to address this relationship in detail. For example, philosophical tools, social sciences, anthropology, psychology and history have been used to successfully argue for the complexity of this relationship (Atran, 2010; Clarke, 2014; Clarke et al. 2013; Vainio, 2017). While there are situations where religious behaviour and violence seem to correlate, it is simply not warranted to claim that religiosity per se causes violence more than general human “groupish” or group-oriented behaviour.

The existing issues concern, among other things, the definition of religion, harm and tolerance. In multicultural Western societies, we face more and more questions about religious freedom and religious recognition. Answering these questions requires interdisciplinary work, where philosophy of religion should play important role. Obviously, the question concerning the freedom of religion or freedom of conscience cannot be answered without having well-defined concepts of religion, freedom and conscience that are agreed upon by the disputants. In USA, there is an ongoing discussion whether “freedom of worship” is the same thing as “freedom of religion”. It seems that this redefinition restricts the meaning of religion so that special freedom would be applicable to the places and moments of “worship” and not to public life. This, however, enforces a very narrow definition what religious convictions are and what they entail.

But granting the freedom of religion creates new issues, such as how should individuals and institutions encounter and foster multiple religious, or ideological, identities within the same public space. Since the Enlightenment, we have been familiar with the attitude of toleration, but now many argue that this are not enough. Instead of toleration, we should aim for acknowledgement and recognition. Since these demands come from political philosophy, they function quite well with national and racial identities, but run into problems in cases where there are ideological convictions involved, be they secular or religious. The practical question is what we can reasonably demand from people when we know how political, moral and religious convictions are formed and sustained (Vainio and Visala, 2016).

Cosmology and human existence. Several scientists have recently popularised their work in the form of popular science books, which also delve into questions that are not inherently scientific. Effectively, many scientists use their authority as scientists to engage philosophical or theological questions (Krauss, 2012; Vilenkin, 2006). Some such claims have been subjected to criticism not only by theists but also atheists (Nagel, 2010). We think that this is important task for philosophers of religion to undertake simply because it is not good for the public discourse to be based on highly contested or even blatantly false views.

Philosophy of religion has traditionally discussed the meaning of Big Bang-cosmology and whether it supports, for example, Kalam cosmological argument (Craig and Sinclair, 2012). Recent ongoing discussion concerns multiverse cosmologies and their effects on religious views (Holder, 2004). An example of a cosmological question, which is not directly religious but it has religious relevance, is the issue of human cosmic significance (Kahane, 2014; Mulgan, 2015). Briefly put, how should we construe human significance and value when we know that the universe is mind-bogglingly huge and we are just vanishing bits of dust in the midst of endless empty space?

A further question concerns the possibility of objective moral value in our almost incomprehensibly large cosmos. While philosophers of religion have focused on arguing for theism as the source of objective value, there has been an emergence of various non-naturalistic positions that acknowledge the value theistic considerations and arguments while rejecting theism (Wielenberg, 2014). While non-naturalist options in metaethics have become more popular in philosophy, this quite likely means more work and visibility for philosophers of religion who have for long wrestled with these questions (Cuneo, 2016).

Conclusion

We have suggested a modest methodological pluralism in philosophy of religion, when it engages the sciences. Since there is no single methodology in philosophy and there are various scientific

methodologies depending on the subject matter, there cannot be just one monolithic method that could be used to solve the issues in the interface of science and philosophy. The methods and questions are determined ad hoc and based on the nature of the issue at hand. It is, of course, possible and even hoped for that philosophers of religion provide contextual methodologies that define how philosophical tools are to be used in a specified context. One such example is the analytic theology project that investigates the reasonability of theological doctrines and attempts to find new ways to formulate them with analytic tools (Arcadi, 2017).

Meanwhile, we propose that the enquiry should pay attention to a broad range of epistemic virtues, such as transparency, honesty and all the other virtues necessary for critical thinking, which should guide the scholars as they go about thinking these issues. While there is some disagreement concerning the ultimate goals of philosophy in general and philosophy of religion in particular, we believe that virtually everyone thinks that these goals include, even if they are not exhausted by, rational and public enquiry of fundamental questions of being and existence, providing arguments and counter-arguments to pre-theoretical convictions and assessing strengths and weaknesses of various claims that are relevant to our worldview (Gutting, 2016). We cannot see how meaningful public discussion about these matters could take place without the perspectives provided by philosophers of religion.

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Data availability

Data sharing is not applicable to this paper as no datasets were analysed or generated.

Additional information

Competing interests: The authors declare no competing interests.

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